

REMARKS

An Office Action was mailed on September 2, 2003. Claims 1, 2, 8, 9 and 16 are pending in the present application. Claims 8 and 16 are herewith canceled.

DRAWINGS

Applicant is submitting herewith a complete set of drawing Replacement Sheets for the review and consideration of the Examiner. Such drawings include proposed amendments from November 27, 2002, that have been approved by the Examiner.

CLAIM OBJECTIONS

Claims 1, 2, 9 and 16 are objected to for wording informalities. Responsive thereto, Applicant has amended the claims to overcome such objections.

REJECTIONS UNDER 35 U.S.C. § 103

The Examiner rejected claims 1, 2 and 8 under 35 U.S.C. §103(a) as being unpatentable over Laquement et al. (U.S. Patent 4,811,696) in view of Jackson (U.S. Patent 2,391,244). The Examiner also rejected claims 9 and 16 under 35 U.S.C. §103(a) as being unpatentable over Laquement et al. in view of Jackson and Vancamp et al. (U.S. Patent 3,679,373).

Responsive thereto, Applicant has amended the claims to clearly distinguish the present invention from the cited art. In particular, Applicant has incorporated the teachings of the last paragraph of the specification into the claims by defining a plurality of openings, one present between the ring pipe and heat exchanger and the other present along the reactor wall between the cross-sectional halves defining the distribution or collection chamber, with the opening defined along the reactor wall being less than the diameter of the chamber cross-section. The Examiner is respectfully directed to the last paragraph of the specification, namely:

Figs. 3 to 8 show embodiments relating to the shape and mounting of the collectors 9 and 10. It is evident that throttle holes, denoted in general by 13, are provided, for example, in the passage walls and also in the reactor wall in order to establish or compensate pressure differences. These holes may vary in size depending on positioning relative to the feed connecting piece and the discharge connecting piece. (emphasis added)

as well as original claims 8 and 16 (both now canceled) and FIG. 8 for example (see below). The opening defined along the reactor wall is restricted to less than the chamber diameter so as to function as a throttle hole for defining a desired pressure loss and hence for ensuring uniform flows over the tube packets, and so as to preclude the applicability of the Jackson reference in the §103(a) obviousness consideration, which defines an opening along the reactor wall that is equal to the chamber diameter.

Applicant respectfully submits that prior art in combination fails to teach or suggest the claimed invention. In particular, the prior art fails to disclose the combination of openings as currently defined in the claims, and in particular the opening defined along the reactor wall between the distribution or collection chamber halves, in combination with the other elements as required by the claims.

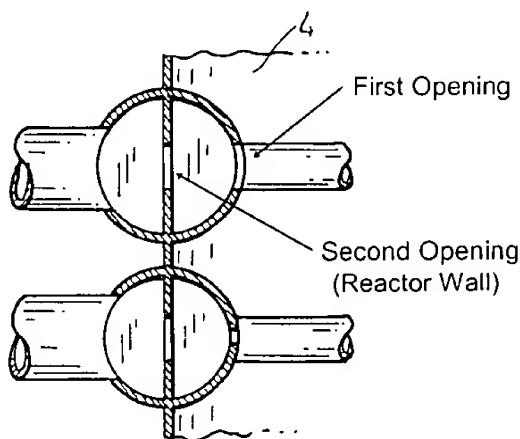


FIG. 8

The prior art only teaches a distribution or collection chamber having an opening the size of the chamber diameter, i.e. the opening defined by the chamber alone. In other words, the prior art does not teach a throttle hole in the reactor wall as particularly claimed between a pair of chamber half-cross sections as also specifically claimed. The Examiner is respectfully directed to reference number (10) in Jackson (FIG. 1), which fails to show a throttle hole in the reactor wall that is less than the chamber diameter as claimed, and reference numbers (62, 64) in Lacquement et al., which fail to show a chamber that straddles the reactor wall. Accordingly, one skilled in the art would not consider it obvious to combine the teachings of any of the references to arrive at the claimed invention.

Applicant has carefully reviewed the prior art of record and the prosecution history and respectfully believes that the present amendments and arguments should be considered by the Examiner without requiring further search and/or consideration. It is not believed that the present amendments would require the Examiner to search any additional classes or sub-classes in the USPTO. It is also not believed that the Examiner would experience an undue burden to reconsider the previously searched classes and subclasses in view of the amendments and argument presented herewith. Thus, it is respectfully requested that the Examiner consider the merits of such amendments in the present case.

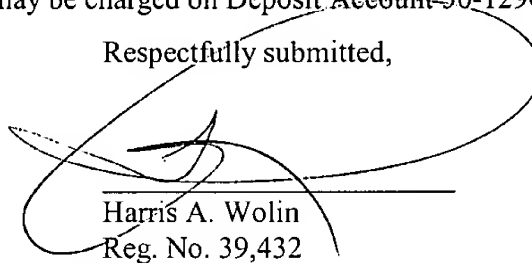
To more completely recognize the scope of the claimed invention, and to include structures that are disclosed in the last paragraph of the specification and FIGS. 3-8, Applicant has added new dependent claims 17-22 directed to the dimensions of the reactor wall and ring pipe openings. Specifically, such claims are supported by the sentences "It is evident that throttle holes, denoted in general by 13, are provided, for example, in the passage walls and also in the reactor wall in order to establish or compensate pressure differences. These holes may vary in size depending on positioning relative to the feed connecting piece and the discharge connecting piece." Such claims are also supported by the figures, and in particular FIG. 8 showing first and second openings having the same dimension, and FIG. 7 showing first and second openings having different dimensions.

For the foregoing reasons, reconsideration is respectfully requested.

An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that claims 1, 2, 9 and 17-22, consisting of independent claims 1, 2 and 9 and the claims dependent therefrom, are in condition for allowance. Passage of this case to allowance is earnestly solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'Harris A. Wolin', is written over a horizontal line. The signature is stylized with a large loop and a crossbar.

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